

RINGLEADER

Every time you use an MIT telephone, you can thank Prof. Carlton Tucker (EE). He designed and pilots the efficient system for our community of over 15,000. We're the third largest customer of the New England Telephone Company (GE and Raytheon are larger).

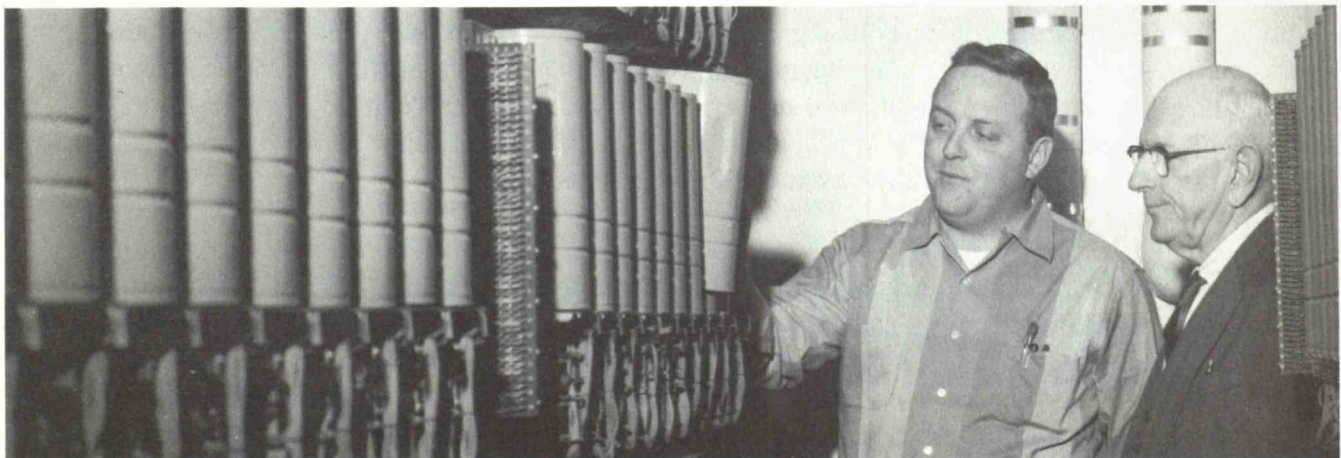
Back in early days, when he was running the EE Machinery Lab., Prof. Tucker had an idea for an Institute dial system. The EE Department (as now) had its own departmental dial system. But it wasn't till 1941, when the Radiation Lab. was growing fast, that an all-Institute dial system was set up.

At a recent meeting of the student AIEEE, in the Bush Room, he described his creation. The heart of the system is in Bldg. 10 on the second floor. It requires 30 operators to cover the 24-hour service, and there are three outward positions for toll calls in an office separate from the main switchboard. Approximately 8 to 10 telephone company installers and 2 or 3 repairmen are at MIT daily. Space allotted the telephone area is small. Where, in the N. Y. City telephone system, for example, they have one square foot per line for switching equipment, MIT has half as much.

When the first dial system was completed, there were about 640 lines. Now there are 4,400, and there'll be 400 more added in April. There are 90 lines coming in for UN4-6900, and 144 "outs" -- 122 regular "dial 9" outside lines, 16 for regular Institute toll calls and 6 for personal "dial 20" toll calls. We have 4 so-called foreign exchange lines to outlying districts, and about 30 tie lines, including 10 to Lincoln Lab., 5 to Bedford Flight Facility, 3 to Aracon Bldg. (also Bedford), 5 to and 4 from Harvard, 2 to ESI and 1 to WGBH. On the "30" level are connections to 400 lines for Instrumentation Lab. at 75 Cambridge Parkway. We have a weather service on Ext. 5211. In addition, there are 60 paging lines around the Institute which involve rather complex wiring. So far, says Prof. Tucker, we are no where near the maximum capacity of our telephone system.

As for cost. MIT, regarded as a business by the telephone company, is on metered, or limited service. Every phone call which you make outside costs the Institute a minimum of 5 cents; that's for the first 5 minutes. If you call a 2-message unit area, it's 10 cents for the first 5; 15 cents to a 3-unit area, etc. In view of this cost to MIT and the increased load

TT Photo by Bob Lyon



Prof. Tucker (right) and Frank McGonagle check equipment

on our switchboard, it's a good idea for us all to keep personal calls at an absolute minimum. Many of the department office phones are restricted to inside calls. "Every once in a while," smiles Tucker, "one develops a leak and starts doing lots of business" -- which is curtailed shortly by the telephone repairman. We rent the switchboard, trunk lines and other equipment from the New England Telephone Co.

It costs about 3 cents to switch an incoming call to an extension. Surprisingly, not more than half the people who call MIT know what extensions they want. What's involved if they don't, takes patience. The call goes to an information operator armed with staff directory (updated monthly), student directory, and a rotary card file on employees. She holds the call and keeps hunting until she finds the number; then completes it herself. This is quicker than most systems in which calls are bounced back for the first operator to finish.

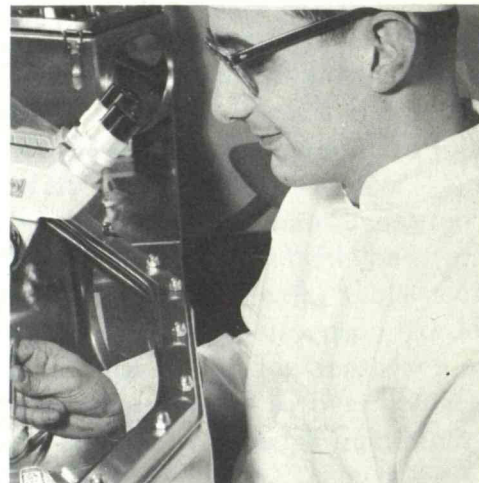
The switchboard is always "covered." During regular hours there are 13 operators, plus the chief operator. After 5 p.m. there are 3, between 8:30 and 11 p.m., 2; and one from 11 to 8 a.m. They are also responsible for the fire console next door which registers alarms from MIT fireboxes.

MIT's dormitory system is separate from the New England Company system and has about 1,800 lines.

OUR MAN IN WASHINGTON

You may not have seen him, but James N. Orgettas (Instrumentation) marched in the Inaugural Parade in Washington. "Nick" is a technician in the Inertial Gyro Group and Sergeant in the National Guard, 26th Yankee Division, 182nd Infantry, Company B, First Brigade. He's also a cadet at the Massachusetts Military Academy.

About 12 cadets were chosen to represent the state in an honor color guard. Nick was notified just a week before and was delighted. A graduate of Wentworth Institute, he worked at Northeast Airlines before coming to MIT in January, 1963. His father, James, is a mechanic in the Instrumentation Maintenance Department at 224 Albany St.



IL Photo by David Chew

Orgettas at IL

KEYNOTE

There's a new system of distributing MIT door keys. To get one, you no longer must visit Physical Plant, which will soon be moving to E-19. Now, using IBM cards distributed to lab and department supervisors, you can apply, exchange or return keys by mail. The method is planned to speed up the key system and allow Physical Plant to send, now and then, a "keys outstanding" list to each department for correction.

CU ACCOUNTS AUDITED

The MIT Credit Union accounts ending in 2 and 3 have been audited and verified as of Dec. 31, 1964. Joseph Cullinan, Chairman of the CU Supervisory Committee, urges members to return the confirmation notices as soon as possible. If your account number ends in 2 or 3 and you have not received a confirmation notice, please contact Mr. Cullinan at the Payroll Office, Bldg. E-19, Room 515 or Ext. 4491. Federal regulations require that CU accounts be audited periodically, and the Supervisory Committee does a group each quarter.



RLE Photo by Peter Avuland

HOOP AND HOLLER

Entertaining RLE and LNS families at the Faculty Club one recent Saturday was Chief Red Thunder Cloud (Carlos Westez), a technical assistant in Modern Languages and RLE. He's the last known member of the South Carolina Catawba Nation to speak his tribe's language; is working part-time with Prof. G. H. Matthews (Mod. Languages), recording the language for a research project.

In tribal regalia, the Chief; his wife, Princess Little Song Bird; and two sons, Strong Singer and Dancing Deer, presented a dance program -- including a Taos Hoop Dance and Cheyenne Fast War Dance. The family is said to be the first American Indians ever to record an LP, hi-fi album for kids ("A Child's Introduction to the American Indian"). Enjoying their MIT demonstration: An audience of some 200 who consumed 150 Cokes, 200 Hoodsies, 24 lbs. of cookies, and no doubt taught some warwhoops to the Indians.

Big Red at Faculty Club

SPEED GRAPHIC

Graphic Arts now has 3 service branches in operation around the campus. One is in Bldg. 3-003, another in Bldg. 52-444 and the newest in E-19, Room 220. All have messenger service to and from the main Graphic Arts Bldg. on Mass. Ave.

IRISH ARTS

An Irish Arts Festival, open to the public, will be held in Kresge Little Theatre on Feb. 12, 13 and 14. It is sponsored by the MIT Humanities Dept., Course XXI Society, Lecture Series Committee, and the American Committee for Irish Studies. Three one-act plays will be given on Friday and Saturday evenings. On Friday at 3:00 p.m. there will be a talk by John Kelleher, Professor of Modern Irish Literature and History at Harvard. Saturday afternoon at 2:30, Russell Connor, artist and lecturer at the Boston Museum of Fine Arts, will discuss "The Paintings of Jack B. Yeats" -- whose work is on display through Feb. 17 in the Hayden Gallery-- and Irish playwright and author Denis Johnston will discuss "The Gate Theater."

NEW FACE FOR TYPE

Illustration Service (Graphic Arts) has a new machine which can set 2,800 variations of any one type font. It's called a Photo-Typositor, and the styles are similar to most all available type faces. Basically, it uses film strips, like large typewriter ribbons. Each has capital and lower case alphabets for a style. The machine's operator can move the film to find the correct letter; then press a button and the letter is photographed and transferred by chemical solution to a clean strip of paper. It's almost like typing. The operator can change the shade or size of any letter. Especially useful for headings and posters, it's also, according to Illustration's Ed West, a good deal cheaper than typesetting. To see it, call Ext. 2375.



TT Photo by Bob Lyon

Eugene Conlon and Typositor

FOR SALE ETC.

Nikkorex F cam and case 50mm FL 4 lens, new, guarantee, \$200. Ext 324 Linc or 935-2177.
 Lady's ski boots, 6 1/2 N, good cond, \$15. Ext 5302 Linc.
 Moores gas heater for LR, exc cond, \$75. 567-6327.
 Expert typing; fast service. Trudy, B14-7263.
 Collar record chgr in exc cond, \$25 or best offer. L. Coris, ext 2110 or 491-3577 evgs.
 Woman's gold ski pants, never worn, size 14-16, \$15. Jean, ext 2261.
 Pr Town & Country re-capped snow tires, 500 mi, 6.70-15, incl rims, new tubes, mounted. 389-1689 evgs.
 Ski poles, 55" steel, \$7.50; 56" alum (orig. \$9.95), \$4. Ext 2336 or 227-4207, Bob.
 Men's suits: two 3-button, 42 long, 31" length winter wgt; two 3-button, 40 long, 31" summer wgt. 566-6199.
 2 AR-2 spkrs; Janzen electro. tweeter, \$40; Bogan RP230 stereo MX rcvr; Bell T347 tape rcd, \$200; Dyna 60w amp, \$60. Dean Hamilton, ext 30376.
 Motorola 8 transistor R, 7 x 4 x 2" R, orig \$40, now \$12. Alice, ext 4861.
 Golfcraft golf clubs, putter, bag; contemp LR furn: sofa, 3 chairs; stereo hi fi, preamp, amp, tuner, etc. 782-9864 eve.
 Babysitting. Westgate mother will care for your baby in her own home. 491-4071.
 2 VW snow tires, \$25. Dick, ext 30310.
 Schrober electronic 2 manual organ, \$600; Leslie cabinet, \$300. W. Derry, ext 2776.
 Craftsman jigsaw, 18" throat, tilt tble, 1/4 hp motor mounted on stand, like new. Joe Martoni, M18-2174 evgs.
 Child's new 36" FLX filer sled, \$8; Hamil tractor, \$10; used stroller, \$8; car bed, \$3. WA 4-5862 evgs.
 Must sell assorted furn, BR set, K set, refrig, 3 lg couches, sev lamps, chairs, etc. Pouzin, X 6007 or JA 2-0256.
 Mother will care for child in home; also will do German translation, knitting, Arlington Hts. 646-1911.
 21" tble TV, new screen, needs minor repair, best offer. Ext 2109.
 Northland skis, rel. binding, Ebonite bottoms, 67", \$40 new, \$15; woman's ski boots, 10, \$10. Ext 3165 or 653-8189p.m.
 Two tires, wheels, 7.50 x 14, for Chevy. Al De Parolesa, ext 460 Linc.
 Hoover elec sweeper for floors and rugs, attach's, only used few times, \$15. B14-5266.
 Stereo power amp, Dyna 35, brand new. Mott, ext 5235 or 783-0672.
 K tble, 3 K chairs, dresser, dble bed, TV set. Ext 2688.
 BR set, dble bed, dble dresser, sgle dresser, 2 bedside tbles, \$75. P. R. Tatro, VO2-0860.
 Fisher FM 90X tuner, \$35; Koss stereo headphones, \$10. Bill Eykamp, ext 3905.
 VW headrest, skitrack, shelf for back of car, \$15 or sell separately. Mrs. Gundersen, ext 3751 or DE 2-8251.
 Records, 45 rpm, 280 in all, 90 aibums, classical, semi-class., Broadway mus, \$45. Halpern, X5567 or 926-1340p.m.
 New glass fishing rod, reel, line; new Fiberglas hockey stick; ice skates, men's 8, used once. Barry, ext 3757.
 Upright piano, exc cond internally and externally. RE4-1196.
 Fashion flared woman's lightweight Eng. wool tweed coat, size 14, \$10 or best. 267-5890.
 Hammarlund HQ-170 rcvr, \$225, GE Sideband slicer, \$75, both exc cond. M. Lazarus, 266-0864 evgs.
 Zenith hearing aid, practically new, list \$175, asking \$100. Ext 2252.
 AKC reg std blk poodles. 298-9514 or 361-4061 evgs.
 Sofa, chr, dresser, filing cab. Also sublet beg Feb 1, lg LR, BR, K, 5 min from Hvd. Sq. Bob, X708 or EL4-4219.
 Woman's figure skates, size 9, man's hockey skates, size 10. 868-5572 evgs.
 Dog airline kennel, used once, cost \$10, asking \$5. Ext 30314.
 Blue Danish sofa, exc cond, \$45. 734-3962.
 30 gal gas-lined, gas ht water heater, used 6 wks, on warranty, \$30. Roy, ext 4016 or 828-1567.
 Uphol rocker, \$10; Tea cart, \$7; Garrard typeA, dust cvr, walnut base; 6 cab latches. Pat, X5495 or 491-1819 evgs.
 Old Singer sewing machine, \$15. 484-1711.
 Allied R Knight T-150A trans and R-100 rcvr; elec keyer & key; ant. relay, swr bridge. Matt, X3161 or TR 6-8139.
 Admiral console, TV, FM and AM R, record player, good cond, \$36 or best. P. Secker, ext 4677.
 Practically unused AR 2-speed turntable, \$50. John Rudy, dormline 8442 or 491-2761.
 Dripschorn: Huge folded horn woofer with horn tweeter, ultimate fidelity, \$250 with amplifiers. TR6-6589.
 Piano lessons: \$12/mo for 1/2 hr/wk; \$20 for 1 hr/wk. Also voice lessons for girls 12 or over. 491-0907.
 Will do all kinds of typing. Barbara Lee, ext 5408.
 Elec blanket for twin bed, \$10. Dick, ext 3165 or 653-8189.
 6' x 3' x 3' wooden storage box w/ath cover, \$10. Bruce McCallum, ext 3679.
 Boy's hockey skates, size 2, like new, \$5. 969-8269.
 Thesis and term paper typing. Frances Romney, ext 2281 or 547-9728 evgs.
 Mod desk with Formica top, 38" x 20" x 29", 1 drawer, 1 shelf. Linda, ext 4111.
 Comp skindivers equip, large. Parker, ext 2805.
 Man's Schwinn bicycle, \$10. Ralph White, ext 4626.
 New handmade sweater, man's, large, Scandia knit, beige. Ext 4112.
 2 snow tires on wheels, Mobiles, used 1 season, fit Chevy '61-'65, \$35 for both. Ext 3485.
 Must sacrifice Dyna stereo 70 amp, PAS-3 preamp, FM-3 tuner, trntble, spkrs, et al, below list. 491-1229.
 Lady's gold Timex watch, orig \$11.95, sacrifice for \$7. 395-9159.
 Lady's figure skates, 9 1/2; men's hockey skates, 10. K. Becker, ext 4572.
 Free: 2 Java finches with supply of bird seed. Crounse, 266-928.

Kelvinator washing mach, like new, yr old, fully automatic, \$85. C. Witham, ext 444 Linc.
 Pair 7'4" Kneissel skis, \$25; ski rack for convert, 8-pair, \$10; boots, Molitor, man's, 9 1/2. 899-2136.
 '51 Jeep, \$50, sta wag, 2 wheel drive, 4 cyl, new batt, joints, plugs, cables, front end. Ext 3359.
 '54 Pontiac, exc cond, new tires, new R&H, seat belts, \$125. Lattrell, ext 3703 or 868-0335.
 '55 VW, low mi, 2nd engine, snow tires, R, best offer. Ext 2688.
 '55 Ford convert, V-8, good motor, new tires, \$125. 524-6892.
 '56 Chevy 6-cyl, 2-dr, std shift, alm. new lst line tires, depend utility car, \$100 or best. Ext 2928 or 232-4552 evgs.
 '56 Chevy 6-cyl, 2-dr, std trans, new battery, muffler, carburetor, 5 good tires (2 snows), \$165. 272-3176.
 '56 Chevy hdtop 2-dr, std shift, st belts, R&H, \$200. Sue, ext 4251 or 266-7058 evgs.
 '56 VW, sunroof, R&H, good cond. JA 2-8772 before 8:30, after 4:30.
 '56 Chevrolet sedan, 59,000 mi, exc mech cond, \$175. CL 9-9325.
 '57 Chevy 4-dr sedan, 6 cyl, std shift, R&H, \$200. Ron, ext 30352 or 969-5428.
 '57 Plymouth 4-dr, auto, good cond throughout, \$285. Bill, ext 5427 or TR6-6665 evgs.
 '57 Chevy Bel Air convert, white with blk top, R&H, ww's, excep clean, \$450, haggie. Lucky, X5832 Linc, OL8-3079.
 '58 Jaguar Mark VIII, R, snow tires, best offer. Bob Schlundt, ext 2461.
 '58 DeSoto 2-dr hdtop, power steering, R&H, good cond, reas offer. WE3-4885 evgs.
 '58 Chevy 6-cyl std 4-dr, snow tires, new batt, \$300 or best offer. Wai, ext 6113 or EL4-2357 evgs.
 '59 VW convert, gray, 49,000 mi, very clean, stored winters, \$665 w/new top. D. Rising, Ext 4408 or 5125.
 '59 Peugeot 403, exc cond; new tires, clutch, battery, \$450. D. Luckham, ext 5867 or EL4-4318.
 '59 Rambler American sedan, good cond. Also TV, \$25; BR and K furn. Finkelstein, ext 2170 or 491-8226.
 '59 Rover 105, leather uphol, very clean, exc cond, call for demonstration, M18-4483 evgs or weekends.
 '60 Chevrolet, 4-dr sedan, std trans, \$950. Ext 5273.
 '60 T-Bird. P steering, brakes; R&H, auto windows, perf cond, \$1,195. KE6-4414, X 37.
 '62 Falcon, blue, 2-dr coupe, ww's, R&H, std trans, 31,000 mi, \$750, must sell. 935-0684.
 '62 Rambler Classic, std, 6 cyl, 47,000 mi, rebuilt motor, snow tires, spotless in & out, \$850. Ext 2240.
 '64 Ford Galaxy 500, 2-dr hdtop, 8 cyl, Cruiso-matic trans, p steering, R&H, ww's. David Shain, ext 2371.
 '64 Monza Spyder, like new, 6 mos use, white w/blk int, \$1,195; with Blaupunkt AM-FM, \$2,095. 235-8182 evgs.
 '65 Alfa-Romeo Giulia 1600, 1000 mi, \$3,150. Also Dual 1006 record player, best offer. K17-0655 evgs.
 Brighton 6-rm mod apt, 10 min from MIT. 536-9534 or 254-8211.
 Sublet studio apt, avail immed, furn, Marlborough and Mass. Ave., mod B, shower, \$120/mo, incl heat, Jean, ext 2261 or 536-1062 evgs.
 4-rm apt, Newton, quite reasonable. WA4-7914 evgs.
 Sublet 1 BR apt, air cond, w to w carpet, pking, avail now, individ thermostat, Brighton, \$160/mo. X2588 or 782-1505.
 Sublet 2-rm furn apt, Beacon near Mass. Ave. Jackie, ext 4296 or 536-9838.
 Apt to sublet, option to lease, 1 huge rm, K, fp, mod B, 396 Marlborough St, \$100/unfurn, furn avail. 734-4228.
 For rent, 5 rms, B, 2nd flr, newly renovated, with heat, Rte 4 in Billerica, 10 min to Lincoln Lab. 663-3805.
 Rm in priv home w/middleaged couple & no kids, 330 Charles River Rd. W'twn nr Perkins Inst. WA4-0426 evgs.
 Heated apt, 5 rms, tile B, parking, \$95/mo. MO3-3805.
 Lexington ranch, 1/2 landscaped acre, lg LR, fp, foyer, DR, carpeting, 3 BRs, 2Bs, 2-car G. Mrs. W. Ish, X8032 or VO2-7204 evgs.
 Unique contemp split-level, 4-yr old, 3 BRs, 2 Bs, 2-car G, 45 min from Boston, \$25,900. R. Harlow, X 30310.
 Lexington 5 or 6 rm apt, clean, enclosed gardens, located near schools, bus lines, G avail. Morgenstern, 862-8542.
 4-rm heated apt, short drive from MIT, \$80/mo. Mrs. Grande, ext 2569 or CO6-0629 evgs.
 Wanted: Thesis typing, have IBM Executive. 648-5684.
 3 working girls looking for 4th to share apt near Porter Sq, \$58.75/mo. 547-4988 evgs.
 Wanted: Ride from Medford to MIT, 9-5, weekdays. Ext 4603.
 Wanted: Ski rack for sedan. Mrs. F. Bragg, ext 128.
 Wanted: Third to share compact apt with 2 ladies, age 40-60, own room, moderate rent. 227-8959 evgs.
 Wanted: Typing. Judy, ext 737.
 Wanted: Magnet core memory planes, 4,096 words/plane. 846-6585 evgs.
 Wanted: Ski rack for a Comet, preferably not stopper kind. Ext 4878.
 Wanted: 12 gauge shotgun, pump, over & under, or auto. Prefer modified or improved cylinder, Nealand, ext 4942 or 444-1765 after 7 p.m.
 Wanted: Cheap but reliable hi-fi setup; specifically turntable, amp-preamp, spkr. Joe Perkill, X 3201 or 734-5637.
 Wanted: Sm piano, studio upright, spinet, or sm parlor grand, no full size uprights. G. Bergeron, X82-260, Bedford.
 Rmmate wanted: fem, Colonial Village, Arlington Hts, own rm, \$75, pool, air cond, 1 rmmate. M16-8062.
 Wanted: Used portable crib in good condition. M16-8474.
 Wanted: Furn apt for postdoctoral fellow and wife from Feb. 1. Ext 3706.
 Wanted: Used piano, upright and/or grand. Ext 3364 or 227-8136 evgs.
 Wanted: Used baby crib and mattress. Mrs. Getty, 923-8995.
 Wanted: Used wooden skis, no longer than 6', and poles in good cond. Ext 4008.
 Wanted: Girl, 25-30, to share lg apt w 3 others, own BR, Brookline, \$36.25/mo/ea. RE4-3206 wkday evgs.
 Wanted: Children's dble ski boots, sizes 1 or 2 & 6 or 7; children's skis, steel edges, 4' & 5'. 899-2136.
 Wanted: Rmmate to share 4 BR town house. Ave cost per man less than \$30/mo rent; \$33/food. Ralph, Ext 5149 or TR6-8996.